QUALIKEMS FINE CHEM PVT. LTD.
5531,BASTI HARPHOOL SINGH,SADAR THANA ROAD, DELHI-06.
Material Safety Data Sheet
Adipic acid

Section 1 - Chemical Product and Company Identification

MSDS Name: Adipic acid

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
124-04-9	Adipic acid	99	204-673-3

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white solid.
Warning! May cause autonomic nervous system and gastrointestinal disorders. Causes eye irritation. May cause skin and respiratory tract irritation.
Target Organs: Respiratory system, gastrointestinal system, eyes, nervous system, skin.

Potential Health Effects
Eye: Causes eye irritation.
Skin: May cause skin irritation. Adipic acid exerts a drying action on the skin and may cause dermatitis in humans.
Ingestion: Ingestion of large amounts may cause gastrointestinal irritation.
Inhalation: May cause respiratory tract irritation. Clinical examination of workers engaged in adipic acid manufacture found that inhaling adipic acid dust produced functional disorders of the autonomic nervous system and gastrointestinal tract and in the mucosa of the upper respiratory tract.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid.
Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.
Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial

respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.
Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.
Flash Point: 196 deg C (384.80 deg F)
Autoignition Temperature: 420 deg C (788.00 deg F)
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust.
Storage: Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong bases.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Adipic acid	5 mg/m3 TWA	none listed	none listed

Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or

European Standard EN166.
Skin: Wear appropriate gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to minimize contact with skin.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: white
Odor: odorless
pH: 3.2 (0.1% soln)
Vapor Pressure: 0.073 mm Hg @ 18.5 deg C
Vapor Density: 5.04 (air=1)
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: 337.5 deg C @ 760 mm Hg
Freezing/Melting Point:152 deg C
Decomposition Temperature:330 deg C
Solubility: 2.0 g/100g @ 25°C
Specific Gravity/Density:1.360 g/cm @ 20/4°C
Molecular Formula:C6H10O4
Molecular Weight:146.14

Section 10 - Stability and Reactivity

Chemical Stability: Stable. Dusts may form an explosion hazard.
Conditions to Avoid: Dust generation, Aqueous solutions are very mildly corrosive to most metals..
Incompatibilities with Other Materials: Strong oxidizing agents, strong reducing agents, strong bases.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 124-04-9: AU8400000
LD50/LC50:
CAS# 124-04-9:
Draize test, rabbit, eye: 20 mg/24H Moderate;
Oral, mouse: LD50 = 1900 mg/kg;
Oral, rabbit: LD50 = >11 gm/kg;
Oral, rat: LD50 = >11 gm/kg;<BR.

Carcinogenicity:
CAS# 124-04-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Mutagenicity: No data available.

Neurotoxicity: ACGIH says threshold limit value is based upon neurotoxicity.
Other Studies:

Section 12 - Ecological Information

Ecotoxicity: Fish: Bluegill/Sunfish: LC50 = 97-330 mg/L; 24-96 Hr.; Static conditions, 18-22 degrees C The Koc of adipic acid is estimated as approximately 26, using a measured log Kow of 0.08 and a regression-derived equation. According to a recommended classification scheme, this estimated Koc value suggests that adipic acid is expected to have very high mobility in soil.
Environmental: Adipic acid is not expected to volatilize from dry soil surfaces based on its extrapolated vapor pressure. Biodegradability screening tests indicate that adipic acid is readily biodegradable. An 84% conversion of adipic acid's carbon content to carbon dioxide was observed after 30 days aerobic incubation in soil biometer flasks at an initial adipic acid concn of 1 mg/g soil.
Physical: ATMOSPHERIC FATE: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere, adipic acid, which has an extrapolated vapor pressure of 3.2X10-7 mm Hg at 25 deg C, will exist in both the vapor and particulate phases in the ambient atmosphere. Vapor-phase adipic acid is degraded in the atmosphere by reaction with hot chemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be about 2.9 days. Particulate-phase adipic acid may be physically removed from the air.
Other: According to a classification scheme, an estimated BCF value of 0.68, from a measured log Kow, suggests that bioconcentration in aquatic organisms is low. Biodegradability screening tests indicate that adipic acid is readily biodegradable. Adipic acid was rapidly degraded in a river die-away test using Main River (Germany) water; 50% and 90% degradation being achieved in 3.5 and 7 days, respectively, at concn levels of 700 mg/l.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	IATA	
Shipping Name:	Please contact for shipping information	
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

Hazard Symbols:
XI
Risk Phrases:
R 36 Irritating to eyes.

Safety Phrases:

Section 16 - Additional Information

MSDS Creation Date: 6/17/2000
Revision #2 Date: 10/08/2004
Revision #3 Date: 09/08/2009
Revision #4 Date: 08/08/2014
Revision #5 Date: 07/08/2019
Revision #6 Date: 06/08/2024